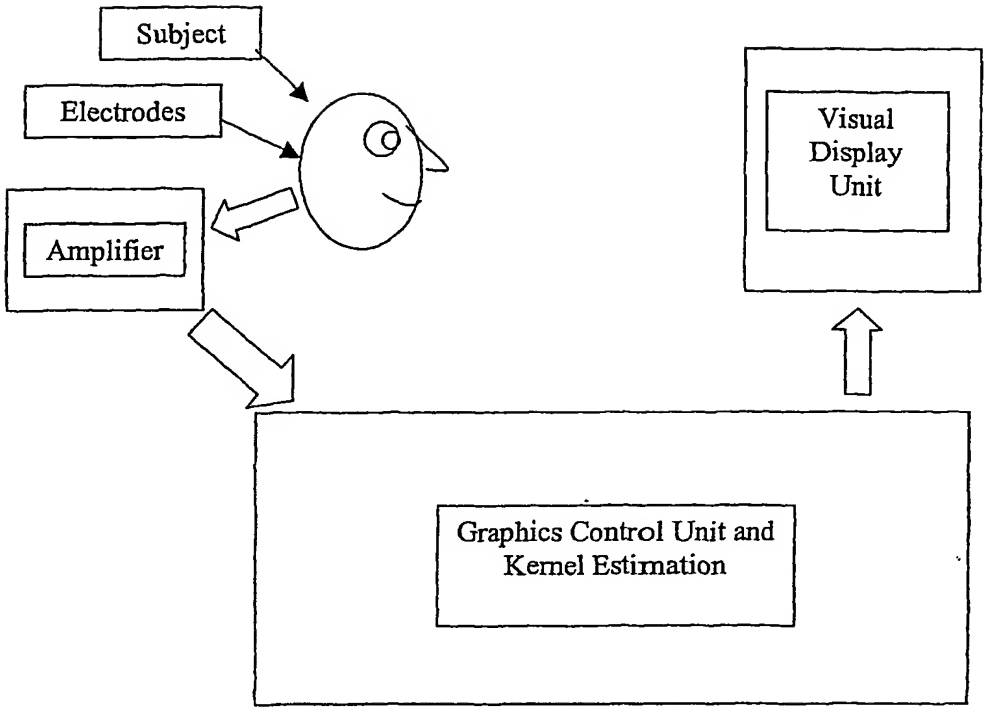


FIGURE 1

BEST AVAILABLE COPY

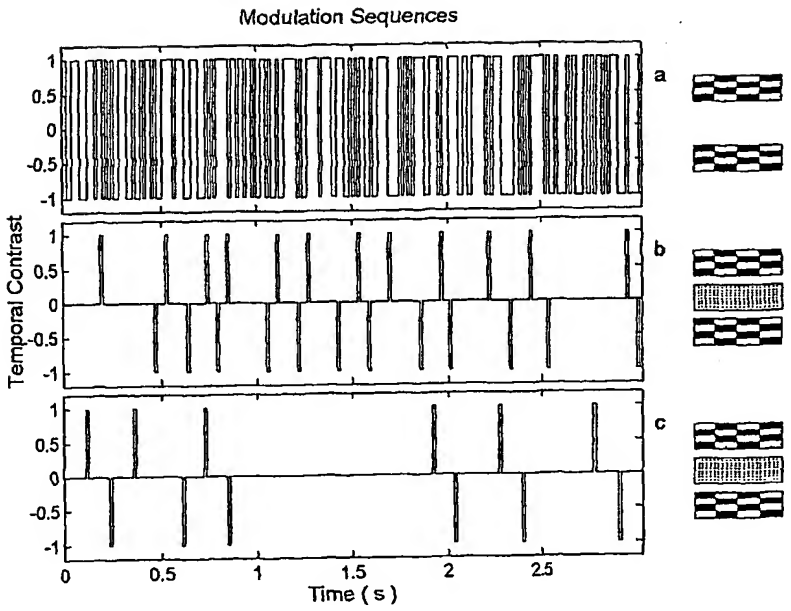
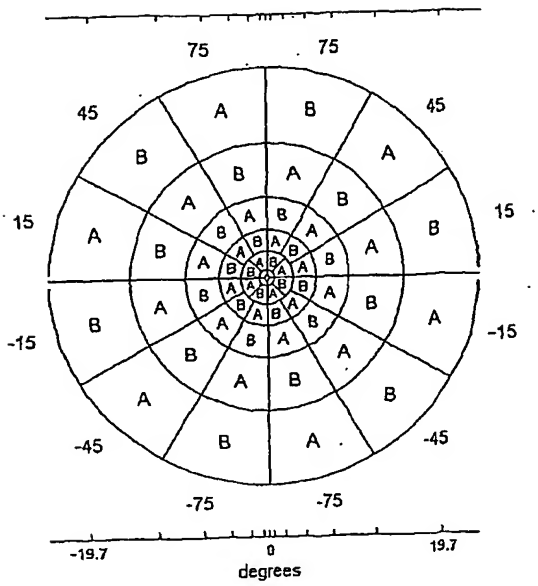

Modulation Sequences
Temporal Contrast
1
0.5
0
-0.5
-1
a
b
c
0
0.5
1
1.5
2
2.5
Time (s)

FIGURE 2

Type I



Type II

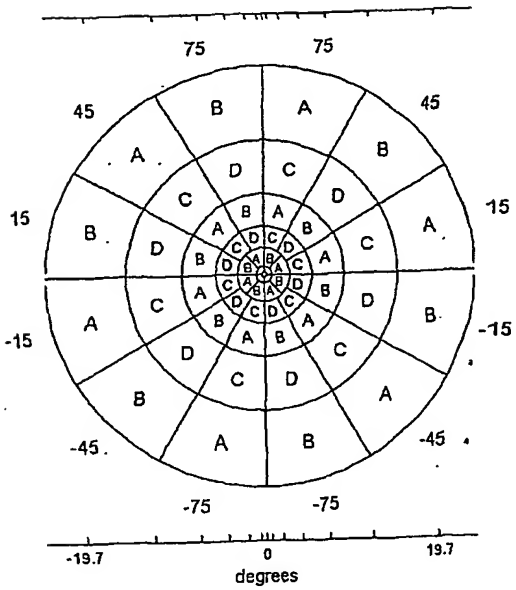


FIGURE 3

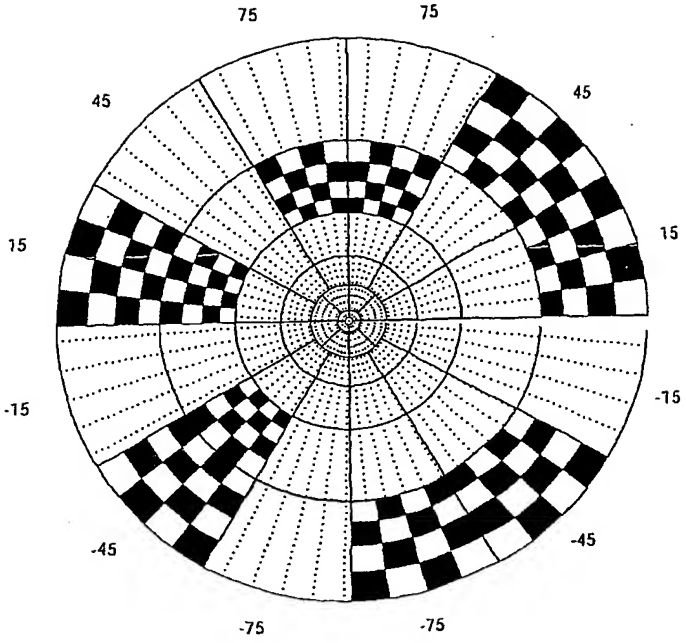


FIGURE 4

Flow chart of the temporal evolution of an ensemble of spatially sparse stimuli

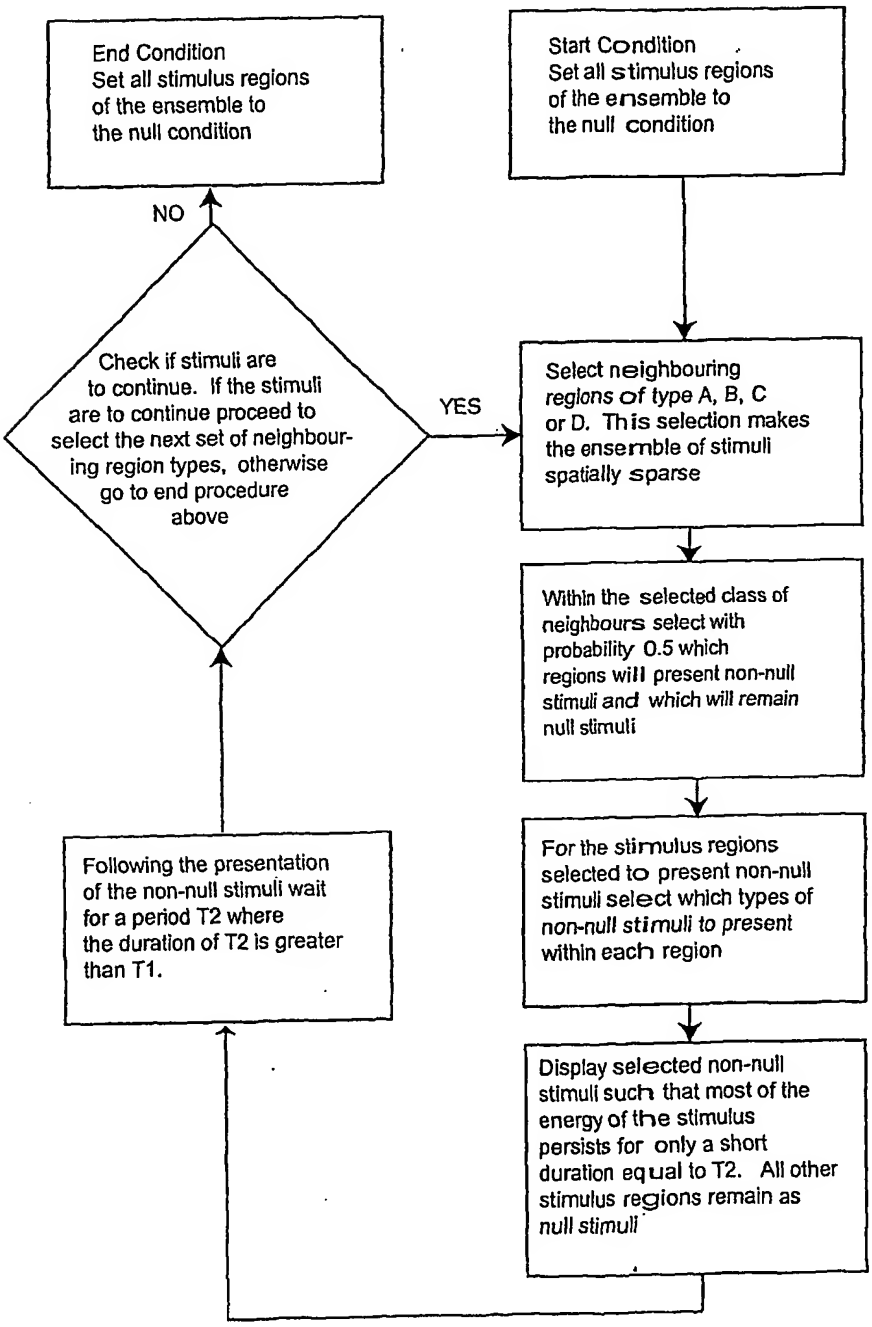


FIGURE 5

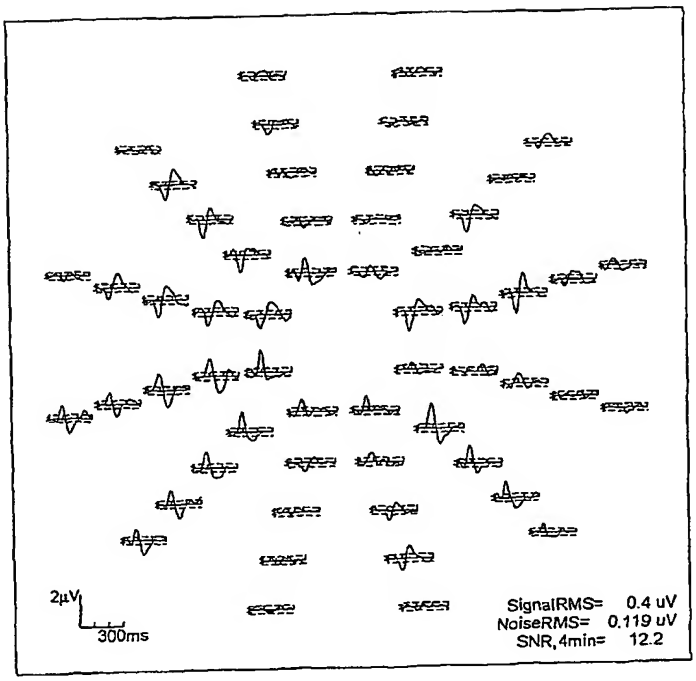


FIGURE 6

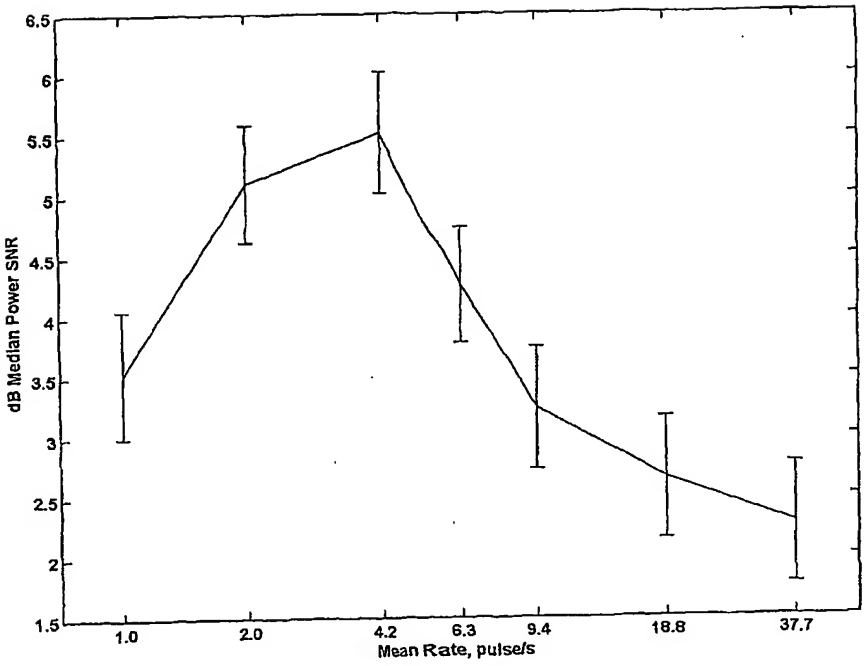

dB Median Power SNR
6.5
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1.0
2.0
4.2
6.3
9.4
18.8
37.7
Mean Rate, pulse/s

FIGURE 7

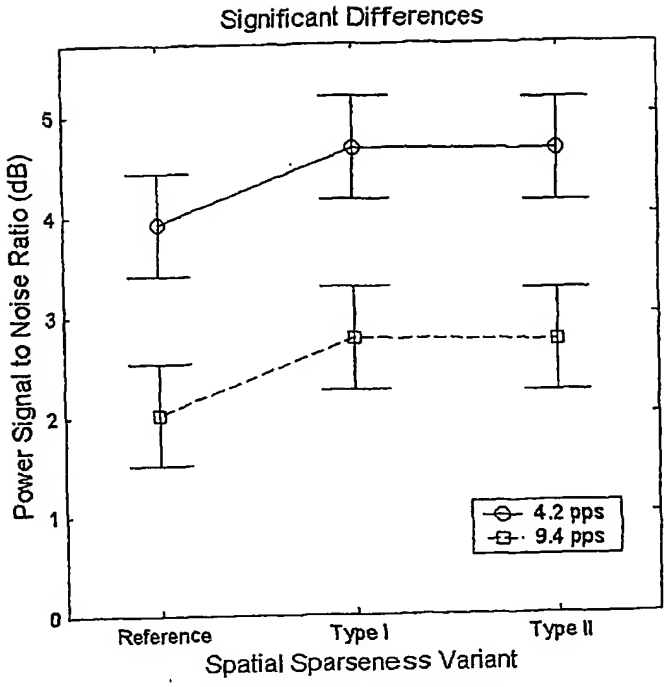

Significant Differences
Power Signal to Noise Ratio (dB)
0
1
2
3
4
5
Reference
Type I
Type II
Spatial Sparseness Variant
4.2 pps
9.4 pps

FIGURE 8

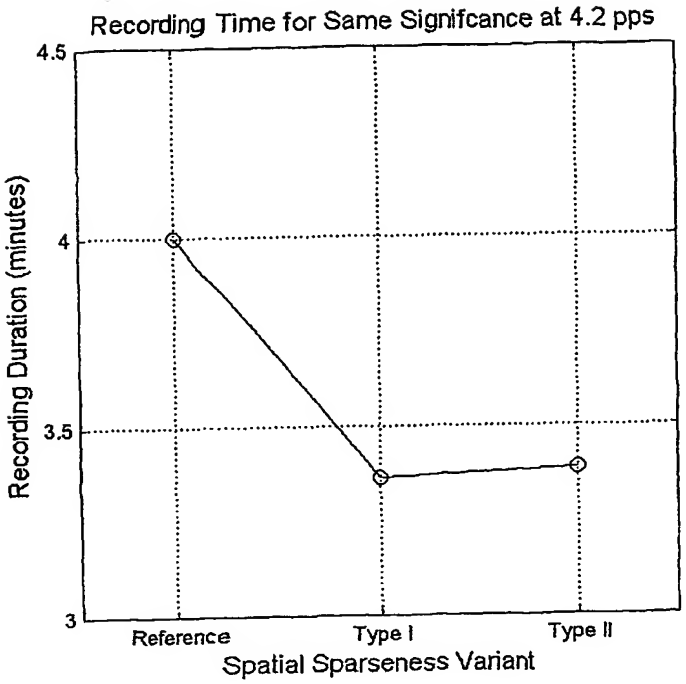

Recording Time for Same Signifcance at 4.2 pps
4.5
4
3.5
3
Recording Duration (minutes)
Reference
Type I
Type II
Spatial Sparseness Variant

FIGURE 9

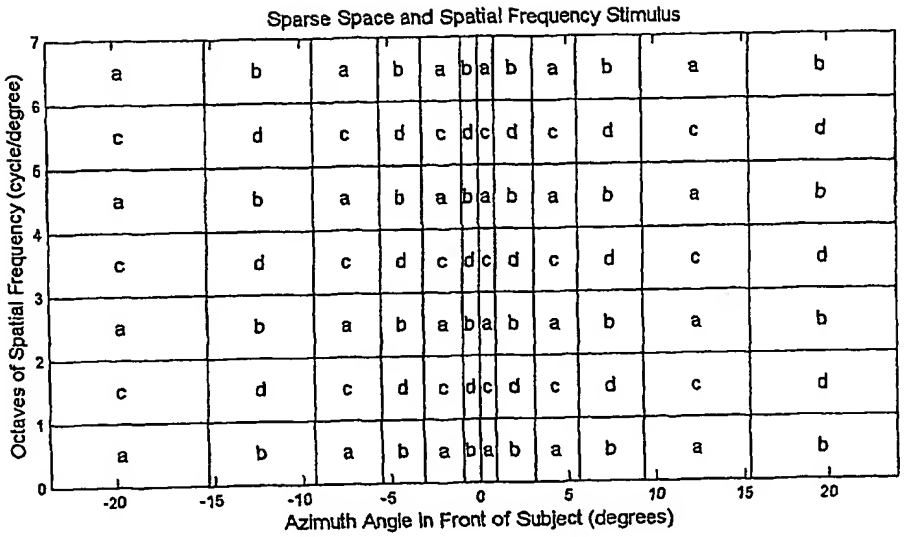

Sparse Space and Spatial Frequency Stimulus
Octaves of Spatial Frequency (cycle/degree)
Azimuth Angle In Front of Subject (degrees)
-20
-15
-10
-5
0
5
10
15
20
0
1
2
3
4
5
6
7
a b a b a b a b a b a b
c d c d c d c d c d c d
a b a b a b a b a b a b
c d c d c d c d c d c d
a b a b a b a b a b a b
c d c d c d c d c d c d
a b a b a b a b a b a b

FIGURE 10

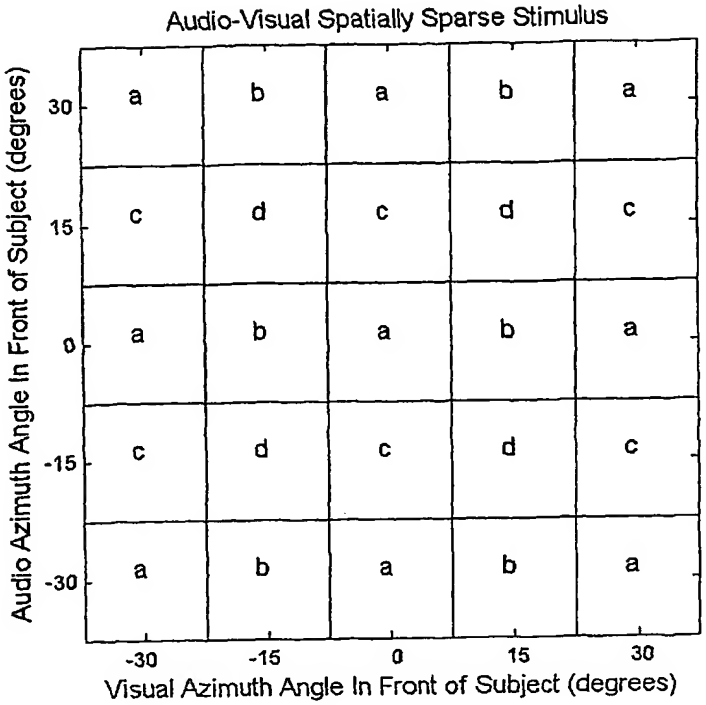

Audio-Visual Spatially Sparse Stimulus
Audio Azimuth Angle In Front of Subject (degrees)
30
15
0
-15
-30
a b a b a
c d c d c
a b a b a
c d c d c
a b a b a
-30 -15 0 15 30
Visual Azimuth Angle In Front of Subject (degrees)

FIGURE 11

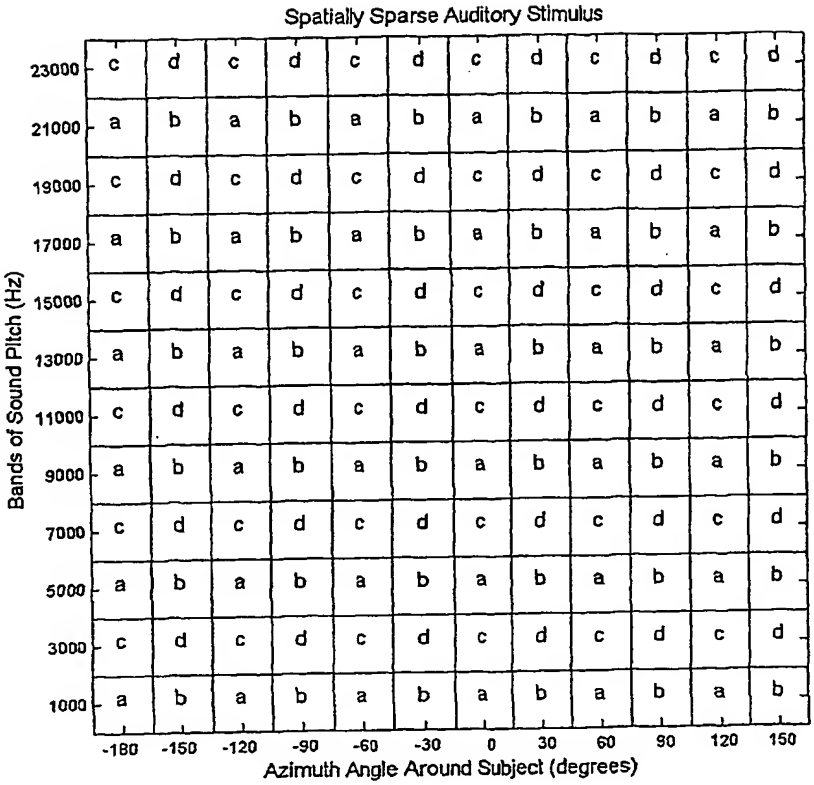

Spatially Sparse Auditory Stimulus
Bands of Sound Pitch (Hz)
23000
21000
19000
17000
15000
13000
11000
9000
7000
5000
3000
1000
-180
-150
-120
-90
-60
-30
0
30
60
90
120
150
Azimuth Angle Around Subject (degrees)

FIGURE 12

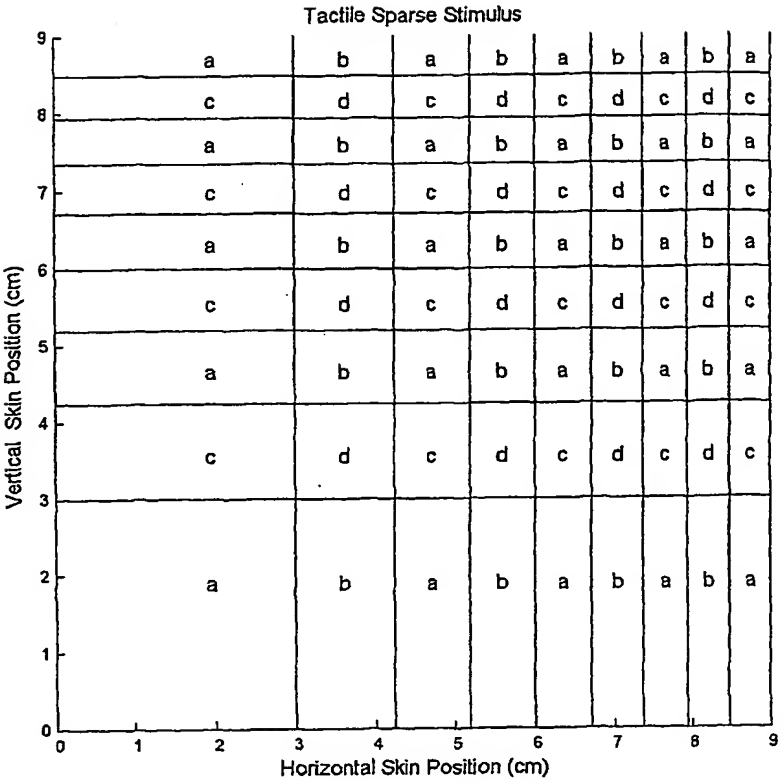

Tactile Sparse Stimulus
Vertical Skin Position (cm)
Horizontal Skin Position (cm)
0
1
2
3
4
5
6
7
8
9
a b a b a b a b a
c d c d c d c d c
a b a b a b a b a
c d c d c d c d c
a b a b a b a b a
c d c d c d c d c
a b a b a b a b a
c d c d c d c d c
a b a b a b a b a

FIGURE 13

This Page is Inserted by IFW Indexing and Scanning Operations and is not part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ BLACK BORDERS
- ☐ IMAGE CUT OFF AT TOP, BOTTOM OR SIDES
- ☑ FADED TEXT OR DRAWING
- ☑ BLURRED OR ILLEGIBLE TEXT OR DRAWING
- ☐ SKEWED/SLANTED IMAGES
- ☐ COLOR OR BLACK AND WHITE PHOTOGRAPHS
- ☐ GRAY SCALE DOCUMENTS
- ☐ LINES OR MARKS ON ORIGINAL DOCUMENT
- ☐ REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY
- ☐ OTHER: _____

IMAGES ARE BEST AVAILABLE COPY.
As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.